calculates a color balance control value.

Color balance calculations are done as follows. The ratio of average values of R, G1, G2, and B is calculated, and the reciprocal of the ratio of R and B using the G1 and G2 average values as the median is calculated as a color balance control value.

The color balance adjustment control value can be finely adjusted (changed) in the following manner.

For example, adjustment in the R-B direction is performed using the switches 704 and 705 shown in Fig. 7. Every time the switch 704 is depressed, a color balance adjustment coefficient unit 219 outputs an R sum signal. A color balance control value operating unit 211 adds a constant to the R control value and subtracts a constant from the B control value. Every time the switch 705 is depressed, the color balance adjustment coefficient unit 219 outputs a B sum signal. The color balance control value operating unit 211 adds a constant to the B control value and subtracts a constant from the R control value.

Adjustment in the magenta-green direction is performed using switches 706 and 707 shown in Fig. 7. Every time the switch 706 is depressed, the color balance adjustment coefficient unit 219 outputs an R+B sum signal. The color balance control value operating unit 211 adds a constant to the R and B control values

and subtracts a constant from the G1 and G2 control values. Every time the switch 705 is depressed, the color balance adjustment coefficient unit 219 outputs a Gr sum signal. The color balance control value operating unit 211 adds a constant to the G1 and G2 control values and subtracts a constant from the R and B control values.

The R, G, and B signals for adjusting the output signals of a monitor (not shown) can be similarly controlled by the signals from the color balance adjustment coefficient unit 219 to allow the operator to confirm the fine adjustment on the monitor.

The color balance control values obtained as described above are set in the image pickup apparatus as the color balance adjustment control values by a color balance control value setting unit 212.

As described above, when image pickup operation is performed using the color balance adjustment control values thus set, an auto white balance adjustment unit 219 adjusts the white balance of each color component of a digital image signal input from an image pickup data input terminal 213 via an image pickup element. A color balance adjustment unit 214 multiplies the set color balance control value with each color component, thereby adjusting the color balance.

For example, when an image has a uniform red portion in its center, a reddish image is output since

this reddish tincture is reflected on the output image.

The color balance-adjusted signal undergoes color processing in a color processing unit 215 and encoding processing in an encoding processing unit 216. An image filing unit 217 converts the encoded image signal into an image file together with the color balance data extracted from the image pickup data. A medium-recording unit 218 records the image file on a recording medium.

As described above, there is provided a function of setting in the image pickup apparatus the color balance adjustment control value obtained from the color balance data recorded together with the image pickup data in the image file. Color balance data recorded in a plurality of scenes can be easily selected and repeatedly used. The user can freely express an image by easily changing the color tincture of the pickup image.

As described above, according to the second embodiment, color balance data recorded in a plurality of scenes can be easily selected and repeatedly used. The user can freely change the color balance of the auto white balance-adjusted pickup image. The user can freely express an image by easily changing the color tincture of the pickup image.

Fig. 3 is a block diagram showing the main part of an image pickup apparatus according to the third